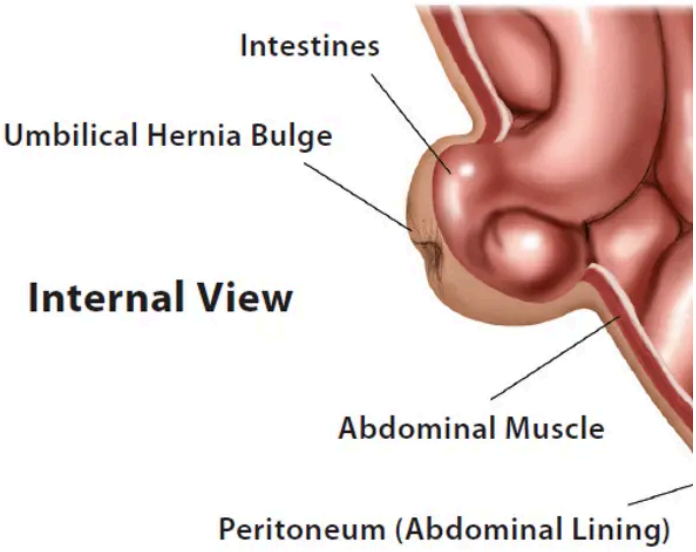
Adult Umbilical Hernia

An umbilical hernia occurs when tissue bulges out through an opening in the muscles on the abdomen near the navel or belly button (umbilicus). About 10% of abdominal hernias are umbilical hernias.



Common Symptoms

- Visible bulge on the abdomen, especially when coughing or straining
- Pain or pressure at the hernia site
- Increasing sharp abdominal pain and vomiting can mean that the hernia is strangulated. This
  is a surgical emergency and immediate treatment is needed.

Treatment Options

Surgical Procedure

Open Hernia Repair

An incision is made near the site. Your surgeon will repair the hernia with mesh or by suturing (sewing) the muscle layer closed.

Laparoscopic Hernia Repair

The hernia is repaired with mesh or sutures inserted through instruments placed into small incisions in the abdomen.

Non-Surgical Treatment

Watchful Waiting

You may be able to wait to repair umbilical hernias that are very small, reducible (can be pushed back in) and not uncomfortable.[3] If your hernia is not surgically repaired, there is a 4% risk that it can strangulate within the next five years. This means that your intestines can be squeezed in the hernia pouch with the blood supply cut off. In this case you will need emergency surgery.

Benefits and Risks of Your Operation

Benefits

An operation is the only way to repair a hernia. You can return to your normal activities and in most cases will not have further discomfort.

Risks of not Having an Operation

Your hernia may cause pain and increase in size. If your intestine becomes squeezed in the hernia pouch, you will have sudden pain, vomiting, and require an immediate operation.

Possible Risks

Possible risks include:

- Return of the hernia
- Infection

- Injury to the bladder, blood vessels, intestines, or nerves
- Continued pain at the hernia site

Expectations

Before your operation—Evaluation may include blood tests, urinalysis, and ultrasound. Your surgeon and anesthesia provider will discuss your health history, home medications, and pain control options.

The day of your operation—You will not eat or drink for six hours before the operation. Most often, you will take your normal medication with a sip of water. You will need someone to drive you home.

Your recovery—For a simple repair, you may go home the same day. You will need to stay longer for complex repairs.[4]

Call your surgeon if you have:

- Severe pain
- Stomach cramping
- Chills or a high fever (over 101°F or 38.3°C)
- Odor or increased drainage from your incision
- No bowel movements for three days

Keeping You Informed

Who Gets an Umbilical Hernia?

Ten percent of all hernias in adults are umbilical.[5] They are three times more common in women due to pregnancy. They are equally as common in men and women over 60 years as abdominal muscles start to weaken.[6]

Pregnancy Considerations

Pregnancy may cause a hernia because of increased abdominal pressure. Hernia among pregnancies is 0.08%. If the hernia is not complicated, but symptomatic, it should be repaired. If the hernia is incarcerated or strangulated it will require an emergency repair.[7]

The Condition

Risk Factors

Common Tests

Surgical Treatment

Keeping You Informed

Open vs. Laparoscopic Incisional Repair

There is no significant evidence on the best technique to repair an umbilical hernia. The type of repair may also depend on the size of the hernia.

- Open mesh and laparoscopic repair for umbilical hernias do not differ in 30-day outcomes or in risk of recurrence. There is a slightly lower wound complication rate, including seromas, hematomas, and infection, with laparoscopic repair.[1] Both types of operations have similar long- term results.
- Open repairs can be done with local anesthesia instead of general anesthesia and are frequently done as outpatient procedures.
- Strangulated hernias may have to be repaired as an open approach.

- The use of mesh provides a stronger repair and decreases the rate of recurrence.
- Suture repair will result in a small incision around the hernia site. Laparoscopic repairs usually have 3 to 4 smaller scars at the site of the entry ports.

Risks Based on the ACS Risk Calculator

Open and Laparoscopic Umbilical Hernia Surgery from the ACS Risk Calculator – March 30, 2022

Risks	Percent for Average Patient	Keeping You Informed
Wound Infection: Infection at the area of the incision or near the organ where the surgery was performed	Open 1.3% Laparoscopic 0.6%	Smoking and obesity increase the risk of postoperative wound complications in general. Smoking cessation is advised for 4–6 weeks, and weight loss to BMI below 35 before elective umbilical repair.

Complications: Including surgical infections, breathing difficulties, blood clots, renal (kidney) complications, cardiac complications, and return to the operating room	Open 2.1% Laparoscopic 2.6%	Complications related to general anesthesia and surgery may be higher in smokers, elderly and/or obese patients, and those with high blood pressure and breathing problems. Wound healing may also be decreased in smokers and those with diabetes and immune system disorders.
Pneumonia: Infection in the lungs	Open 0.1% Laparoscopic 0.2%	Movement, deep breathing, and stopping smoking can help prevent respiratory infections.
Urinary tract infection: Infection of the bladder or kidneys	Open 0.2% Laparoscopic 0.1%	Drinking fluids and catheter care decrease the risk of bladder infection.

Venous thrombosis: A blood clot in the legs that can travel to the lungs	Open 0.1% Laparoscopic 0.1%	Longer surgery and bed rest increase the risk. Getting up, walking 5 to 6 times per day, and wearing support stockings reduce the risk.
Death	0%	Your surgical team is prepared for all emergency situations.

Risks from Outcomes Reported in the Last 10 years of Literature	Percent for Average Patient	Keeping You Informed
Immediate postoperative pain	The method of repair does not appear to cause significant difference in early post-operative pain.	There may be a feeling of tightness in your abdomen because the muscle has been pulled together. Your pain will be managed with nonsteroidal anti-inflammatory medications and by

		resting and avoiding straining or lifting.
Recurrence: A hernia can recur after the repair	Suture repairs 17% Mesh repairs 2.3%[13]	The use of mesh or other type of patch repair appears to reduce the rate of recurrence.[13] Ascites, liver disease, diabetes, obesity, and suture repair without mesh are associated with recurrence.[12]
Seroma: A collection of clear/yellow fluid **Hematoma**: a collection of blood in the wound site or scrotum	**Open & Laparoscopic** Suture repairs 50 of 1,000 Mesh repairs 60 of 1,000[9]	Seromas are the most common complication after umbilical hernia repair. Seromas can form around the former hernia site. Removal of fluid with a sterile needle may be required. Hematomas are treated with anti-inflammatory medications, elevation, and rest.

The data have been averaged per 1,000 cases

The ACS Surgical Risk Calculator estimates the risk of an unfavorable outcome. Data is from a large number of patients who had a surgical procedure similar to this one. If you are healthy with no health problems, your risks may be below average. If you smoke, are obese, or have other health conditions, then your risk may be higher. This information is not intended to replace the advice of a doctor or health care provider. To check your risks, go to the **ACS Risk Calculator**.

Recovering from Surgery

Access resources and information you need to optimize your recovery from surgery.

Surgery FAQ

Answers to common questions surgical patients have before, during, and after a procedure.

Download Operation Brochures

Access print-friendly PDF versions of ACS patient education brochures that outline common surgical procedures.

Glossary

Abdominal X ray: Checks for any loops of bowel or air-filled sacs.

Abdominal ultrasound: Sound waves are used to determine the location of deep structures in the body. A hand roller is placed on top of clear gel and rolled across the abdomen.

Ascites: Excess fluid in the space between the tissues lining the abdomen and abdominal organs; may be due to alcoholism or liver disease.

Advance directives: Documents signed by a competent person giving direction to health care providers about treatment choices.

Blood tests: Tests usually include a Chem-6 profile (sodium, potassium, chloride, carbon dioxide, blood urea nitrogen and creatinine) and complete blood count (red blood cell and white blood cell count).

Computerized tomography (CT) scan: A diagnostic test using X ray and a computer to create a detailed, three-dimensional picture of your abdomen. A CT scan normally takes about 15 minutes or less.

Electrocardiogram (ECG): Measures the rate and regularity of heartbeats, the size of the heart chambers and any damage to the heart.

General anesthesia: A treatment with certain medicines that puts you into a deep sleep so you do not feel pain during surgery.

Hematoma: A collection of blood that has leaked into the tissues of the skin or in an organ, resulting from cutting in surgery or the blood's inability to form a clot.

Incarceration: The protrusion or constriction of an organ through the wall of the cavity that normally contains it.

Local anesthesia: The loss of sensation only in the area of the body where an anesthetic drug is applied or injected.

Seroma: A collection of serous (clear/yellow) fluid.

Strangulation: Part of the intestine or fat is squeezed in the hernia sac, and blood supply to the tissue is cut off.

Urinalysis: A visual and chemical examination of the urine, most often used to screen for urinary tract infections and kidney disease.

DISCLAIMER

The American College of Surgeons (ACS) is a scientific and educational association of surgeons that was founded in 1913 to improve the quality of care for the surgical patient by setting high standards for surgical education and practice. The ACS endeavors to provide procedure education for prospective patients and those who educate them. It is not intended to take the place of a discussion with a qualified surgeon who is familiar with your situation. The ACS makes every effort to provide information that is accurate and timely, but makes no guarantee in this regard.

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